

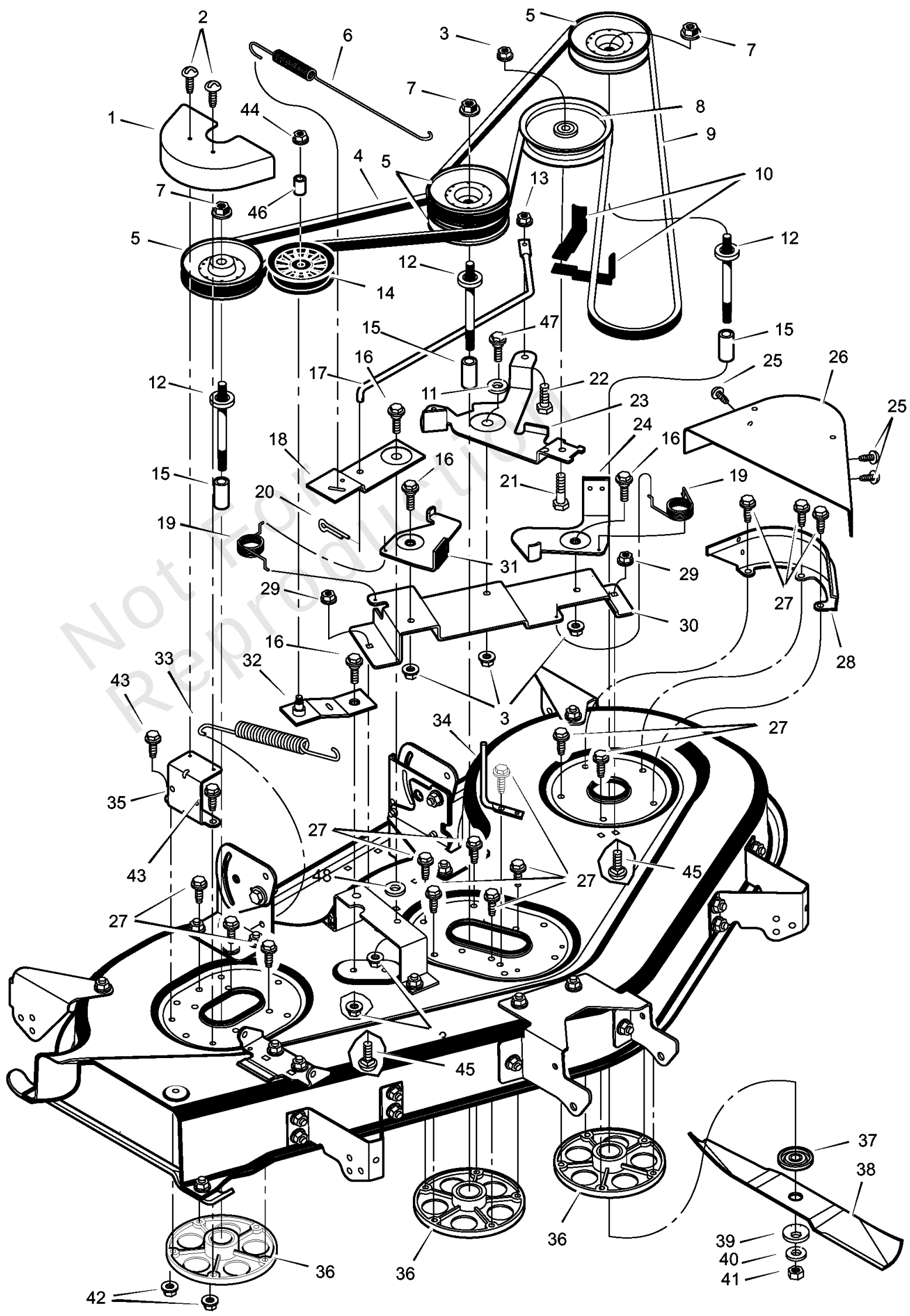


Parts Manual

Mfg. No: 52161x89A
Garden Tractor (1999)

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Not For
Reproduction



Blade Drive

REF NO	PART NO	QTY	DESCRIPTION
1	094607E700		Cover, Right Pulley
2	26X250MA		Screw
3	015X84MA		Nut
4	037X92MA		Belt, Secondary
5	690444MA		Pulley
6	165X138MA		Spring, Extension
7	15X121		Nut
8	095068MA		Pulley, Idler
9	037X93MA		Belt, Primary
10	094809MA		Spring, Belt Guide
11	17X149MA		Washer
12	094129		Mandrel
13	015X89MA		NUT .25-20 FLANGELOCK
14	690549MA		Pulley, Backside Idler
15	094130MA		Spacer
16	009X39MA		Bolt, Shoulder
17	690119 Z		Link
18	094808E700		Bellcrank
19	166X41MA		Spring, Torsion
20	030X20MA		Pin, Cotter
21	01X111MA		Bolt
22	009X54MA		Bolt, Shoulder
23	690068E700		Bracket, Idler
24	095074		Assembly, Brake Arm & Pad
25	26X277MA		Screw
26	094645E700		Cover, Left Pulley
27	0025X7MA		Bolt
28	690221E700		Bracket, Pulley Cover
29	015X79MA		Nut, Flange
30	690414E700		Bracket, Brake
31	094698		Assembly, Brake Arm & Pad
32	094701		Assembly, Idler Arm
33	165X130MA		Spring, Extension
34	092424		Guide, Belt
35	092140E700		Bracket, Cover
36	092574		Housing, Jackshaft
37	092466MA		Adapter, Blade
38	094692E701MA		Blade
39	17X166MA		Washer, Belleville
40	17X165MA		Washer
41	15X100MA		Nut
42	015X88MA		Nut
43	001X84MA		CAPSCREW, Hex Head, 5/16-18 x 1
44	015X98MA		Locknut
45	002X53MA		Bolt, Carriage
46	690369MA		Spacer
47	009X42MA		Bolt, Shoulder
48	17X174MA		Washer

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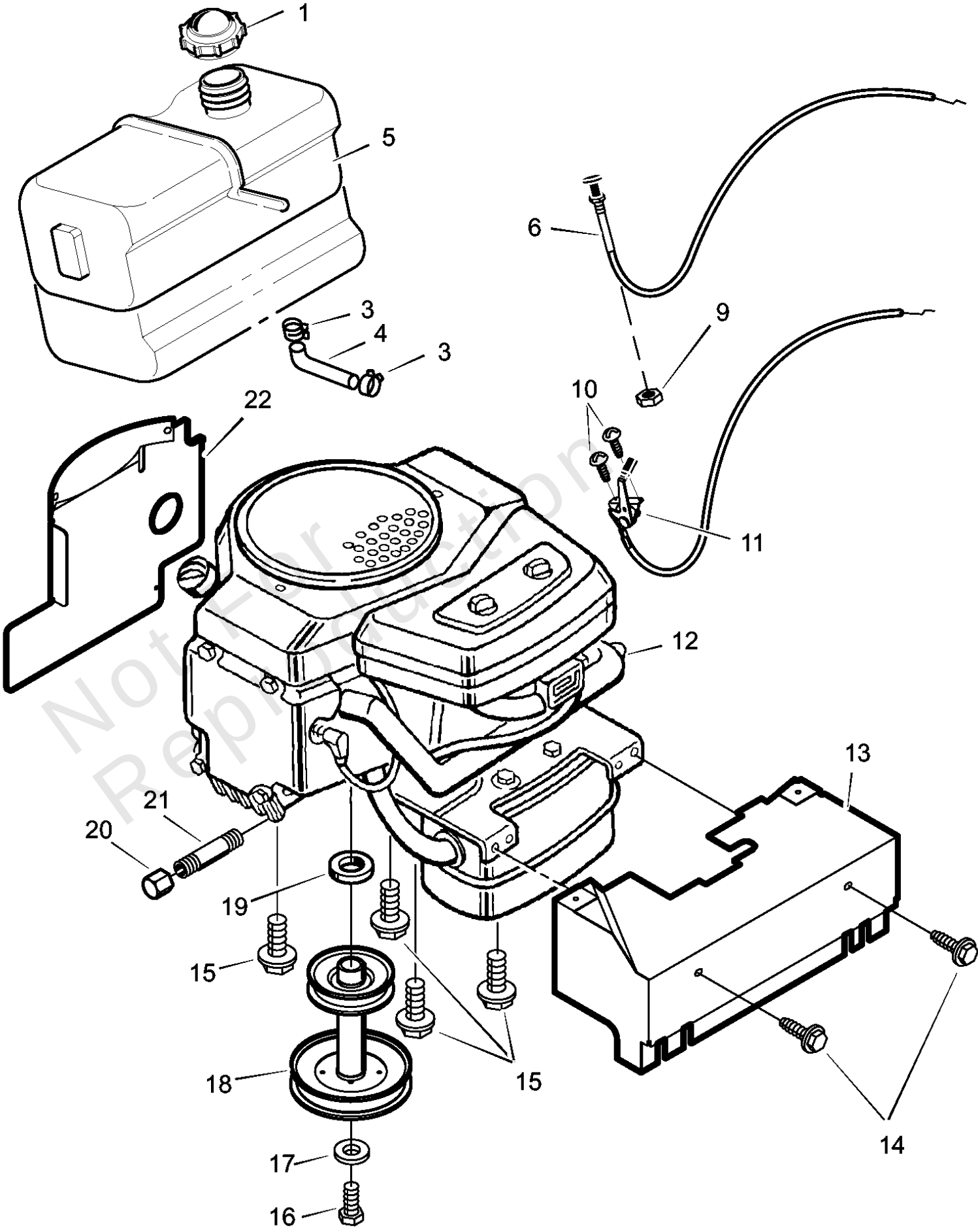
Electrical System

REF NO	PART NO	QTY	DESCRIPTION
1	250X92MA		Harness, Light Wire
--	092372		Socket, Light
--	090084MA		Bulb, Light
2	250X86MA		Harness, Chassis Wire
3	092377MA		Switch, Ignition
--	020729		Key, Ignition
--	091489MA		Nut, Hex
--	091488		Cap, Ignition
4	094136MA		Switch, Limit
5	054212		Fuse
--	407078MA		Holder, Fuse
6	094613		Solenoid
--	26X229MA		Screw, Mounting
--	15X116MA		Locknut
7	024X32MA		Cable, Battery Ground
--	26X213MA		Screw, Ground Cable
8	021075SEMA		Battery
--	002X82MA		Bolt, Carriage
--	014X79MA		Wingnut
9	250X67MA		Harness, Seat Switch Wire
10	094159MA		Switch, Seat Sensor
11	024X31MA		Cable
12	093156MA		Ammeter
--	250X90		Harness, AC/DC Jumper

Engine Mount

Note: Unless noted otherwise, use the standard torque specifications

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Engine Mount

REF NO	PART NO	QTY	DESCRIPTION
1	091349		Cap, Gas
3	095197MA		Clamp
4	023717		Line, Fuel
5	093148		Tank, Fuel
6	690401		Cable, Choke
9	015X68MA		Nut
10	26X201MA		Screw
11	093165MA		Control, Throttle
12	-----		Engine *
--	095198MA		Muffler
--	095208MA		Gasket
--	095200		Liner, Port (Muffler)
--	06X102MA		Bolt (Port Liner)
13	093191E701		Shield Assembly, Heat
14	26X263MA		SCREW.25-20 S-T
15	0025X7MA		Screw
16	01X140MA		Bolt
17	17X170MA		WASHER.46.97.25 FLAT
18	690225 Z		Pulley, Stack
19	093077MA		Spacer
20	021651		Cap, Oil Drain
21	092279		Pipe, Oil Drain
22	093078E700		Baffle, Rear Heat

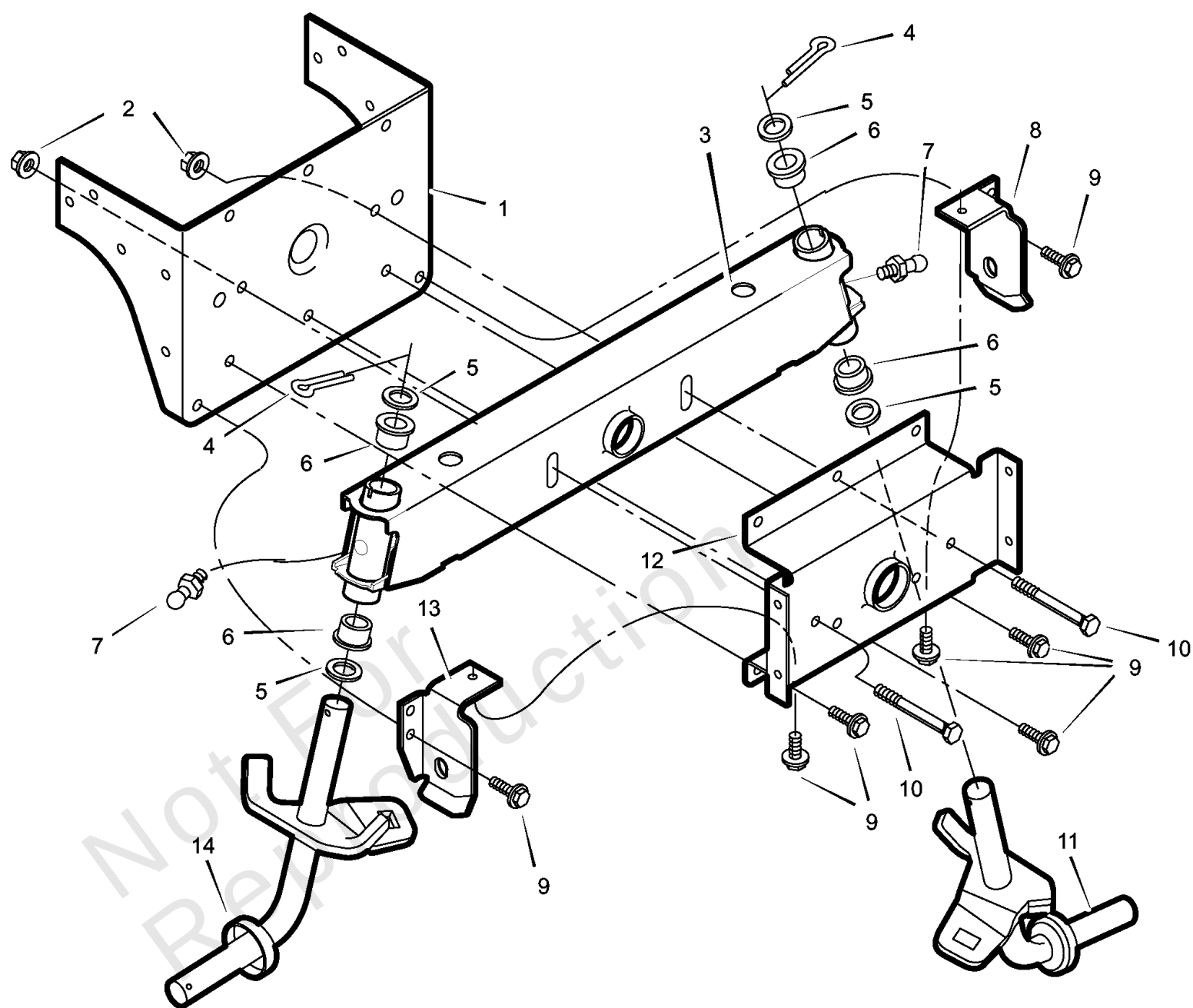
Footnotes:

Note* Parts are available from an engine Authorized Service Center. See "Engines, Gasoline" or "Gasoline Engines" in the yellow pages of the telephone directory.

Front Axle

Note: Unless noted otherwise, use the standard torque specifications

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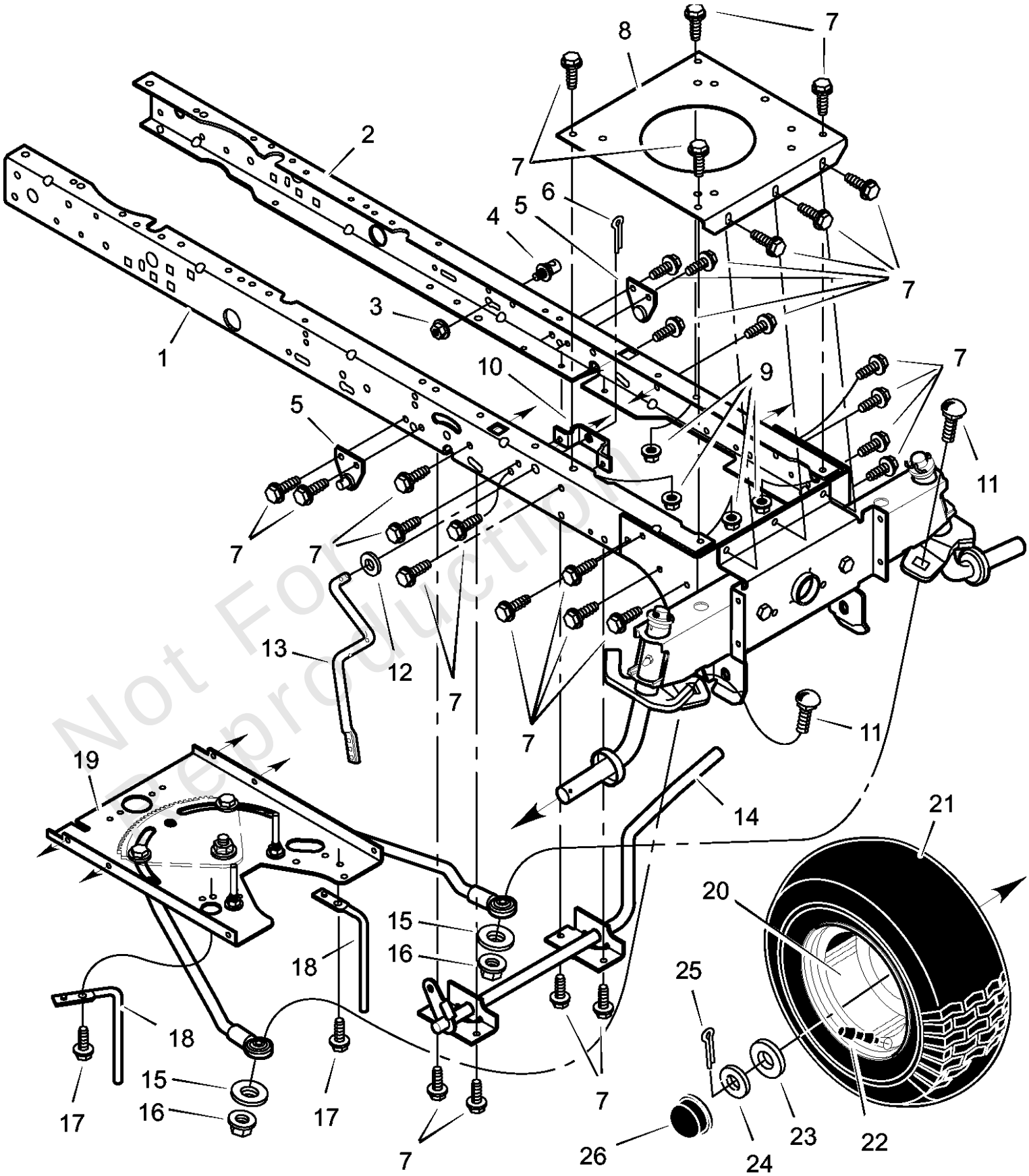
Front Axle

REF NO	PART NO	QTY	DESCRIPTION
1	690067E700		Bracket, Rear Hanger
2	15X118MA		Nut, Flange
3	690210MA		Axle Assembly
4	030X49MA		Pin, Hair
5	017X75MA		Washer
6	093058MA		Bearing, Spindle
7	092530MA		Fitting, Lub
8	690198E700		Hanger, Left Deck
9	26X249MA		Screw
10	01X146MA		Bolt
11	690179E700		Spindle Assembly, Left
12	094007E700		Hanger, Axle
13	690199E700		Hanger, Right Deck
14	690178E700		Spindle Assembly, Right

Front Frame Assembly

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 52161x89A



Front Frame Assembly

REF NO	PART NO	QTY	DESCRIPTION
1	690206E700		Frame, Right
2	690207E700		Frame, Left
3	015X84MA		Nut, Flange
4	690182MA		Stud, Swivel
5	690406E700		Bracket Assembly, Suspension
6	030X20MA		Pin, Cotter
7	26X249MA		Screw
8	094006E700		Plate, Engine
9	015X88MA		Nut
10	094005E700		Bracket, PTO Crank
11	002X87		Bolt, Carriage
12	017X57MA		Washer
13	690394E700		Crank, PTO
14	094038E701MA		Lever, Brake/Clutch
15	17X152		Washer
16	015X41MA		Nut
17	025X15MA		Screw
18	690192E700		Guide, Belt
19	-----		Assembly, Steering *
20	092644601		Wheel & Tire Assembly
21	024393MA		Tire *
--	407049MA		Tube
--	093064MA		Bearing, Wheel
22	024373MA		VALVE STM&CP,TR41 SE
23	17X194MA		Washer
24	17X114MA		Washer
25	030X49MA		Pin, Cotter
26	094618MA		HUB CAP

Footnotes:

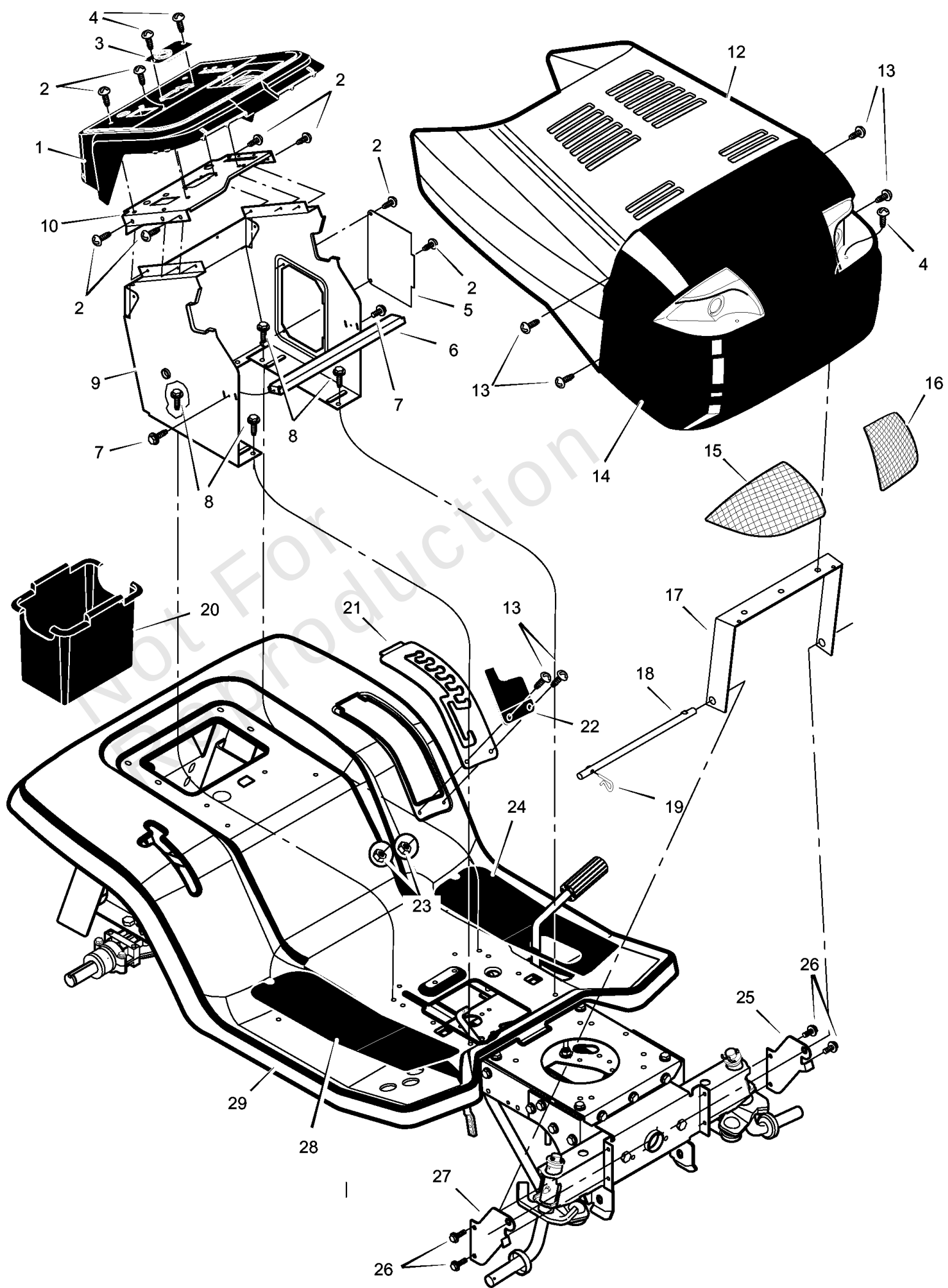
Note* When you order a tire, make sure to give the brand name of the tire so that the tread pattern on the tire will match.

Note* When you order a tire, make sure to give the brand name of the tire so that the tread pattern on the tire will match. See the Sector Gear Repair Parts page.

Hood And Dash

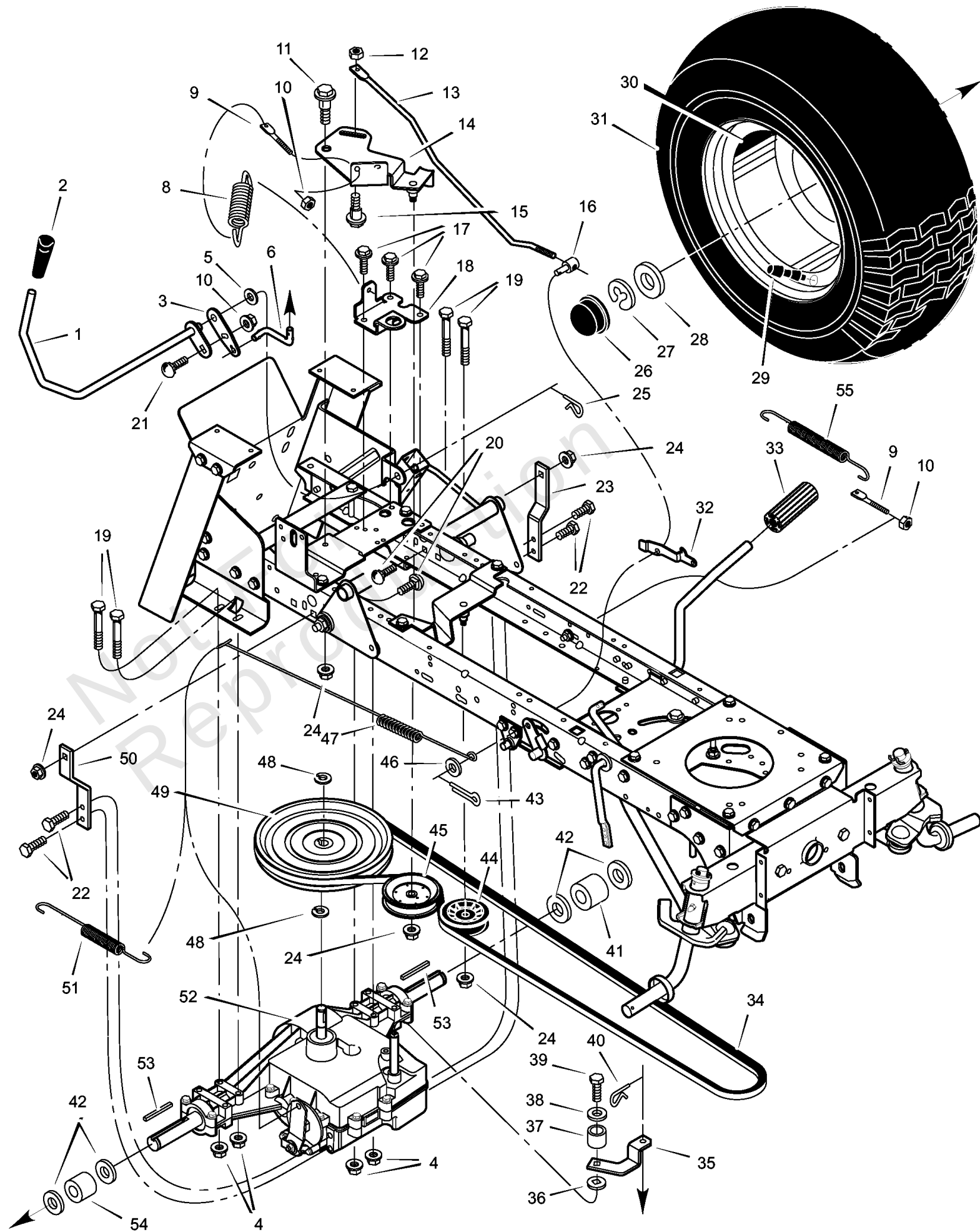
Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 52161x89A



Hood And Dash

REF NO	PART NO	QTY	DESCRIPTION
1	094223		Dash
2	26X270		Screw
3	094219MA		Bearing, Upper Steering
4	26X239MA		Screw
5	093007E700		Panel, Side Access
6	095081		Channel, Support
7	26X263MA		SCREW.25-20 S-T
8	26X249MA		Screw
9	095082		Support, Dash
10	094221E701MA		Plate, Dash
12	093215E549		Hood
13	009X47MA		Bolt, Shoulder
14	092542		Grille -(Includes Lens)
15	092539MA		Lens, Right
16	092540MA		Lens, Left
17	092541MA		Brace, Grille
18	093137 Z		Rod, Pivot
19	0031X4MA		Pin, Hair
20	094069		Container, Battery
21	094194E700		Plate, Lift Detent
22	094680MA		Cover
23	015X81MA		NUT#10-24 MCLEANLOCK
24	094383MA		Mat, Left
25	094213E700		Support, Left Grille
26	26X249MA		Screw
27	094212E700		Support, Right Grille
28	094382MA		Mat, Right
29	095326E549		Deck, Seat
30	44X7653		Decal, Left Hood
--	44X7652		Decal, Right Hood
--	44X7325MA		Decal, Warning



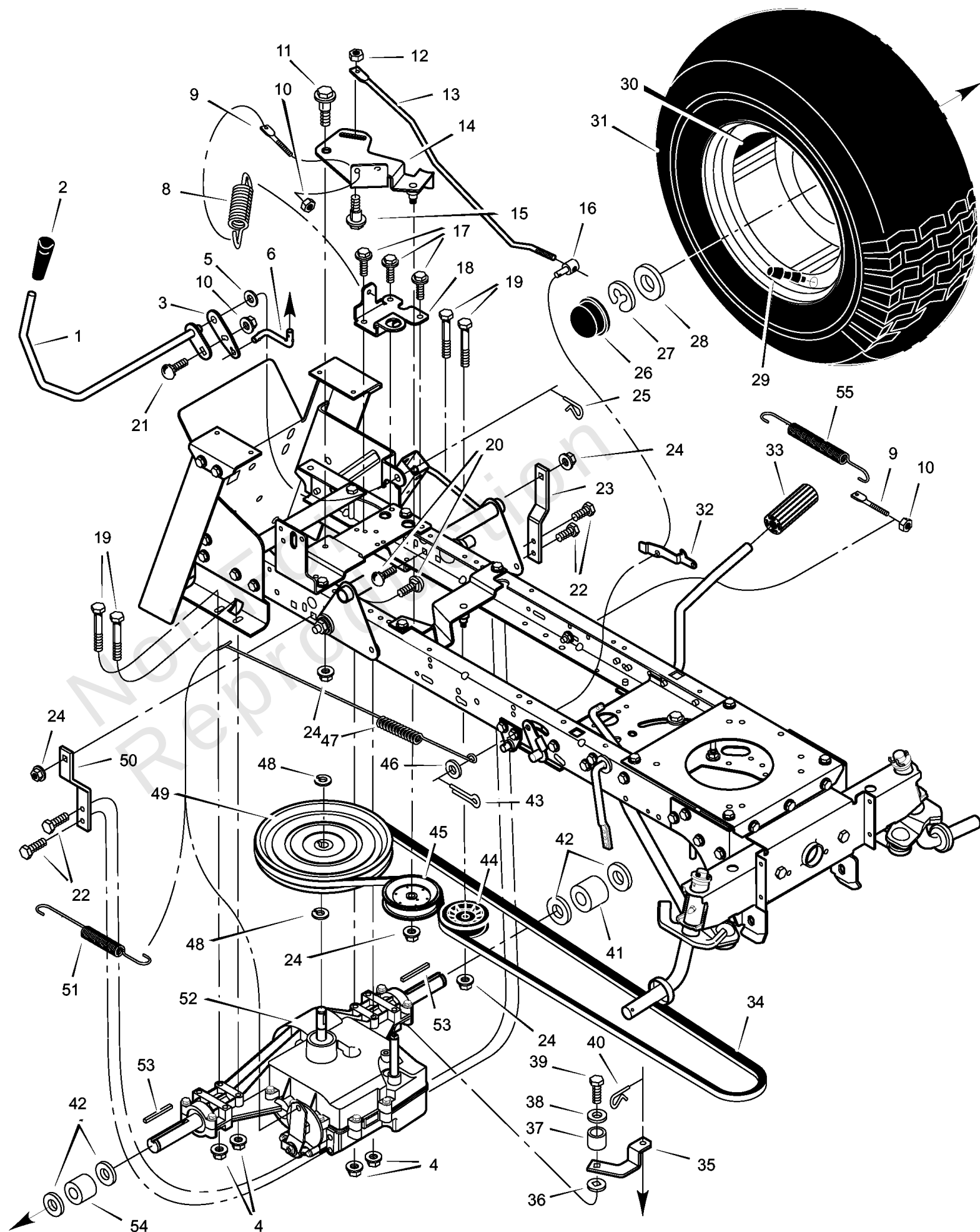
Motion Drive

REF NO	PART NO	QTY	DESCRIPTION
1	690366 Z		Lever, Shift
2	092697MA		Grip
3	690131 Z		Plate, Adjusting
4	015X88MA		Nut
5	17X103MA		Washer
6	690130 Z		Link, Shift
8	165X116MA		Spring, Extension
9	094042ZMA		Stud, Spring
10	015X79MA		Nut
11	009X39MA		Bolt, Shoulder
12	015X89MA		NUT .25-20 FLANGELOCK
13	094041 Z		Rod, Clutch
14	690364 Z		Arm Assembly, Idler
15	009X54MA		Bolt, Shoulder
16	094815ZMA		NUT-ADJUSTING
17	26X249MA		Screw
18	690070E700		Bracket, Spring Mount
19	01X155MA		Bolt
20	002X78		Bolt, Carriage
21	002X53MA		Bolt, Carriage
22	26X216MA		Bolt
23	690081E700		Bracket, Left Torque
24	015X84MA		Nut
25	0031X4MA		Pin, Hair
26	094618MA		HUB CAP
27	011X23MA		E-Ring
28	17X193MA		Washer
29	024373MA		VALVE STM&CP,TR41 SE
30	093263-601		Wheel and Tire
31	091923MA		Tire *
--	407049MA		Tube
32	094045 Z		Latch, Parking Brake
33	021544MA		Pedal
34	037X68MA		Belt, Drive
35	690129 Z		Yoke, Shift
36	17X148MA		Washer, Square
37	091889		Pilot, Support
38	017X38MA		Washer
39	06X105MA		Capscrew
40	0031X6MA		Pin, Hair
41	690213 Z		Spacer, Left
42	17X118 Z		WASHER, 1-1.3 16G FLT
43	030X20MA		Pin, Cotter
44	091178		Pulley, V Idler
45	023339MA		Pulley, Backside Idler
46	17X169MA		Washer
47	165X115MA		Spring, Brake
48	0011X7MA		Ring, Snap

Footnotes:

Note* For information on Replacement Parts see the Central Parts Distributor in your area.

Note* When you order a tire, make sure to give the brand name of the tire so that the tread pattern on the tire will match.



Motion Drive

REF NO	PART NO	QTY	DESCRIPTION
49	690181MA		Pulley, Drive
50	690080E700		Bracket, Right Torque
51	165X92MA		Spring, Extension
52	-----		Transmission *
53	024039MA		Key, Square
54	690214 Z		Spacer, Right
55	165X133MA		Spring, Extension

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Footnotes:

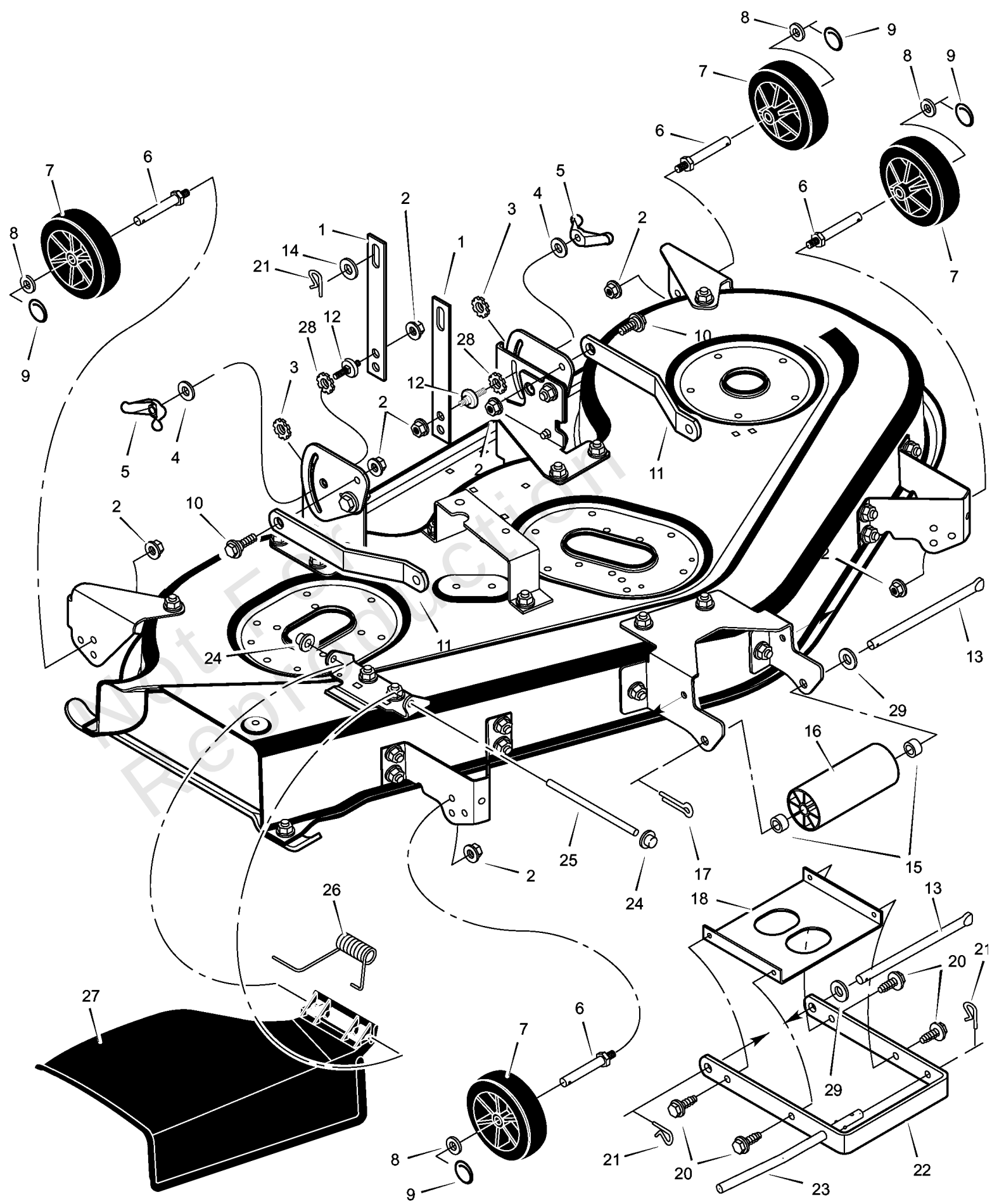
Note* For information on Replacement Parts see the Central Parts Distributor in your area.

Note* When you order a tire, make sure to give the brand name of the tire so that the tread pattern on the tire will match.

Mower Housing Suspension (part 1)

Note: Unless noted otherwise, use the standard torque specifications

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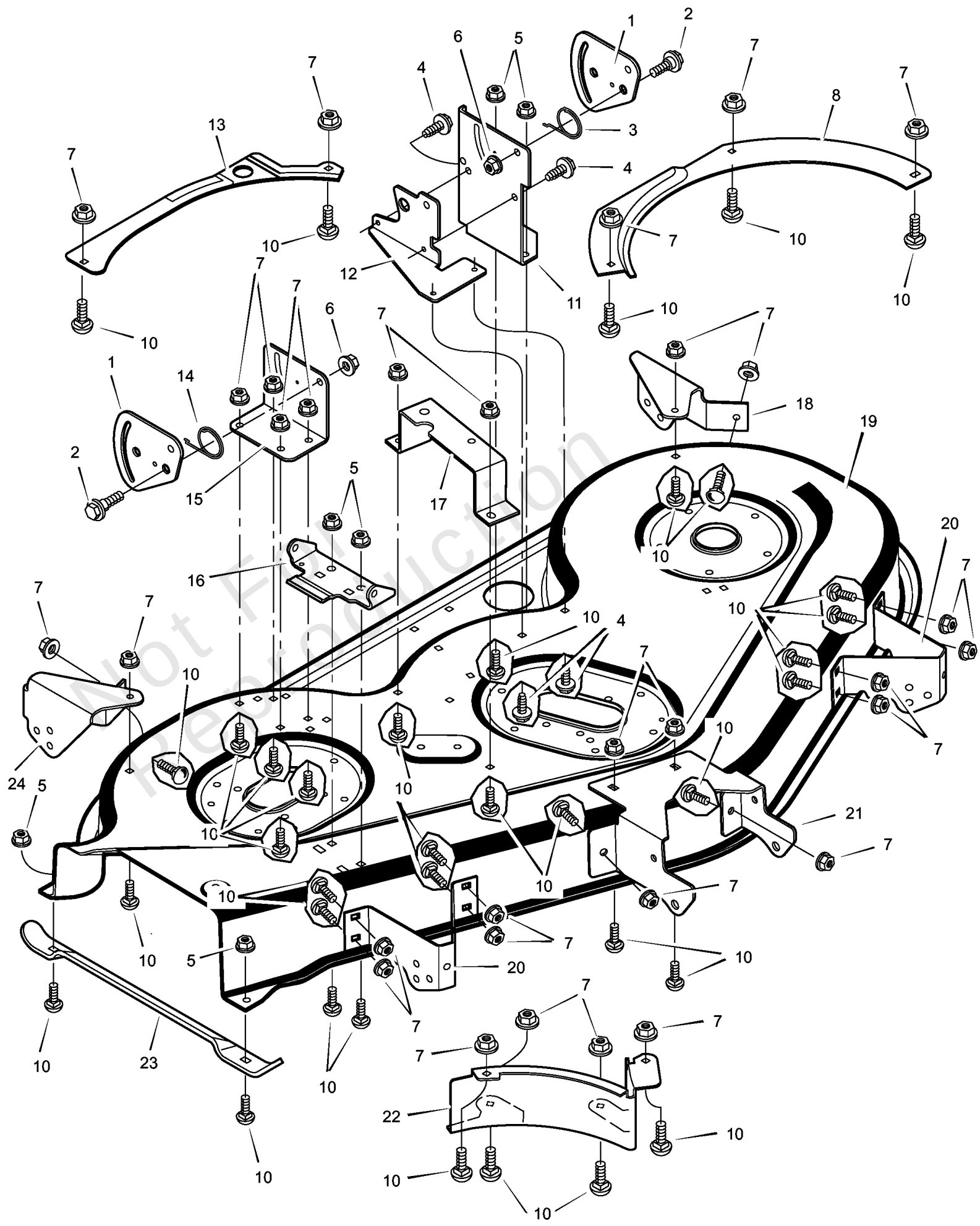
Mower Housing Suspension (part 1)

REF NO	PART NO	QTY	DESCRIPTION
1	690550E700		Link, Lift
2	015X84MA		Nut, Flange
3	019X44MA		Washer
4	017X45MA		WASHER,FLAT .33 1. 16
5	095004MA		Wingnut
6	094025MA		BOLT, Gauge Wheel
7	092683MA		Wheel, Gage
8	17X103MA		Washer
9	031X11MA		Pin, Hair
10	009X52MA		Bolt, Shoulder
11	094055E700		Bracket, Rear Suspension
12	095194		Pin, Hanger
13	094996MA		Rod, Deck Suspension
14	017X91 Z		Washer
15	091925MA		Spacer
16	092137MA		Roller
17	030X49MA		Pin, Cotter
18	094604E700		Stiffener
20	26X249MA		Screw
21	0031X4MA		Pin, Hair
22	690539E700		Hanger, Front
23	094158ZMA		Rod, Front Hanger
24	028X23MA		Cap, Push
25	092159ZMA		Rod, Deflector
26	166X34MA		Spring
27	092100MA		Deflector, Chute
28	019X44MA		Lockwasher
29	17X103MA		Washer

Mower Housing Suspension (part 2)

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 52161x89A



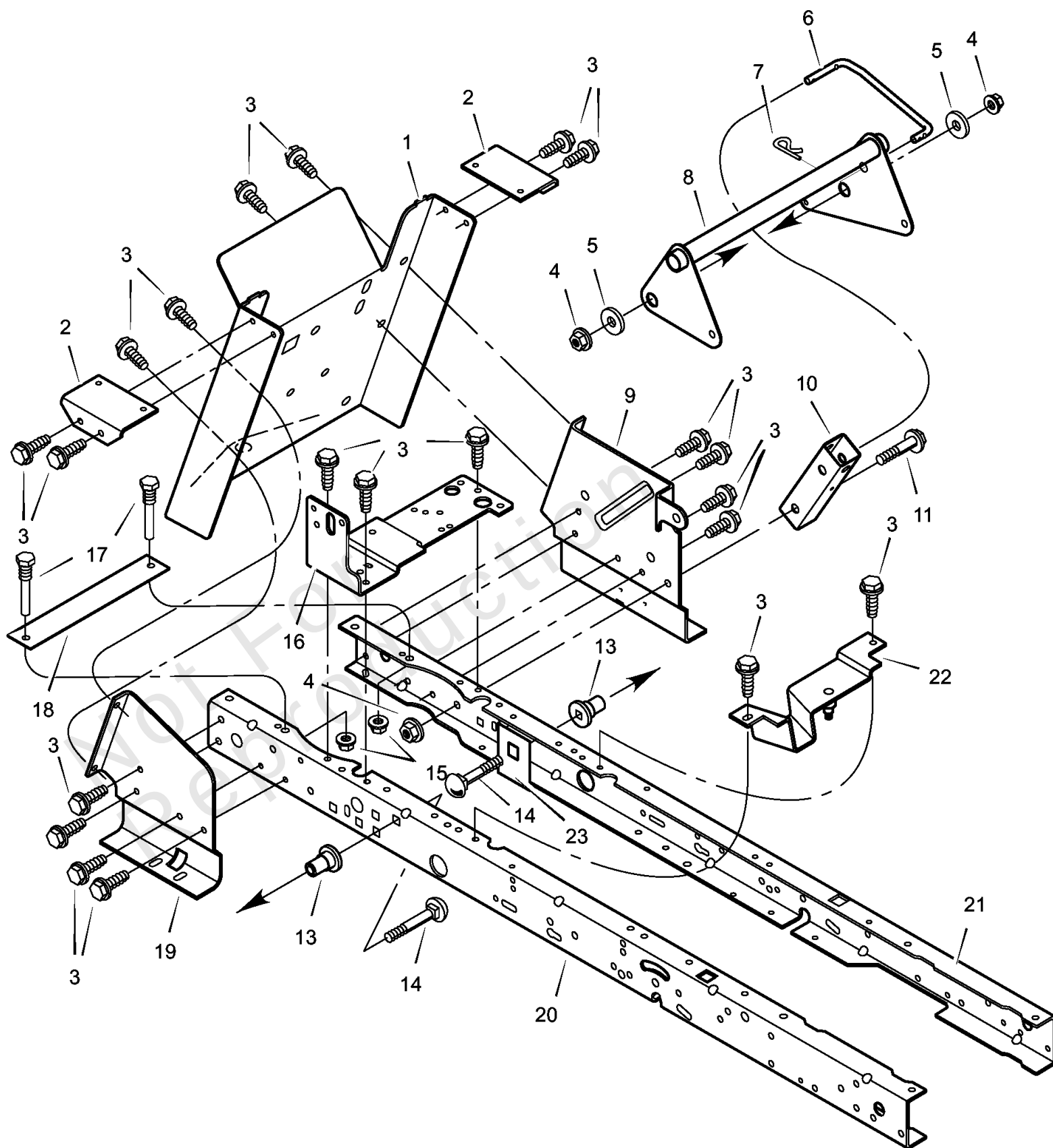
Mower Housing Suspension (part 2)

REF NO	PART NO	QTY	DESCRIPTION
1	690128E700		Plate, Suspension
2	009X51MA		BOLT-SHD.38-16X.499D
3	166X43MA		Spring, Left Torsion
4	26X249MA		Screw
5	015X88MA		Nut, Flange
6	015X84MA		Nut, Flange
7	015X79MA		Nut, Flange
8	094118E700		Baffle, Left
10	002X53MA		Bolt, Carriage
11	690164E700		Bracket, Left Lifter
12	690078E700		Brace, Lifter
13	094117E700		Baffle, Bottom
14	166X42MA		Spring, Right Torsion
15	094694E700		Bracket, Right Lifter
16	092104E700		Bracket, Hinge
17	690118E700		Bracket, Bellcrank
18	094717E700		Bracket, Left Gage Wheel
19	094400E700		Housing, Blade
20	095180E700		Bracket, Front Gage Wheel
21	094693E700MA		Bracket, Front Deck
22	690092E700		Baffle, Right
23	095176E700		Bracket, Chute Support
24	094716E700		Bracket, Rear Gage Wheel

Rear Frame Assembly

Note: Unless noted otherwise, use the standard torque specifications

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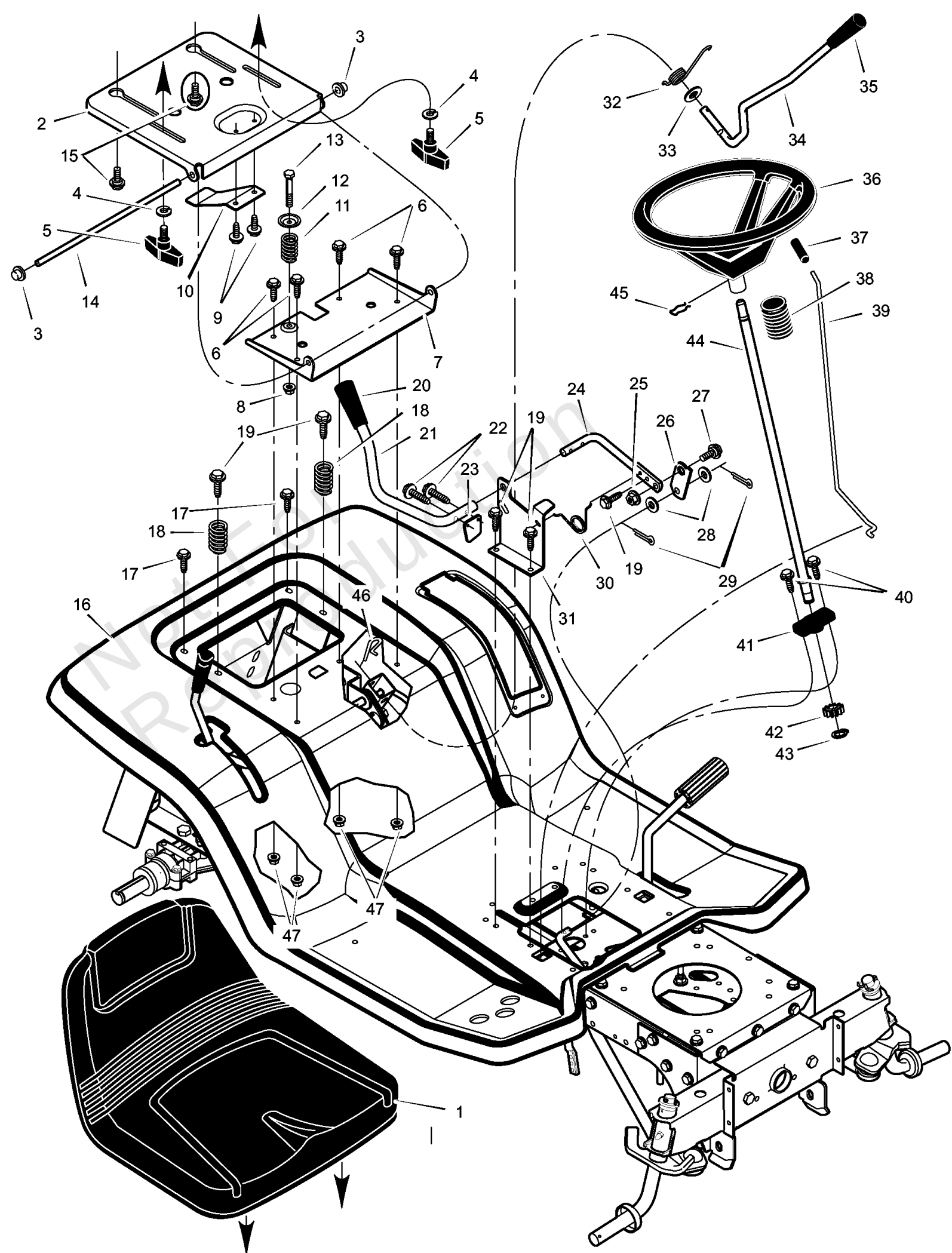
Rear Frame Assembly

REF NO	PART NO	QTY	DESCRIPTION
1	690094E700		Frame, Rear Hitch
2	690077E700		Bracket, Seat Deck
3	26X249MA		Screw
4	015X84MA		Nut, Flange
5	17X168ZMA		Washer
6	690122E700		Link, Lift Handle
7	0031X4MA		Pin, Hair
8	690363E700		Assembly, Lifter
9	690065E700		Bracket, Left Transaxle
10	094015E700		Bracket, Lift Pivot
11	009X53MA		Bolt, Shoulder
13	690151MA		Spacer, Lifter
14	002X85MA		Bolt, Carriage
15	015X79MA		Nut, Flange
16	690166E700		Bracket, Right Shift
17	094384MA		Screw, Guide
18	776101		Plate
19	690064E700		Bracket, Right Transaxle
20	690206E700		Frame, Right
21	690207E700		Frame, Left
22	690365 Z		Bracket, Idler
23	690389E700		Plate, Stiffening

Seat Deck

Note: Unless noted otherwise, use the standard torque specifications

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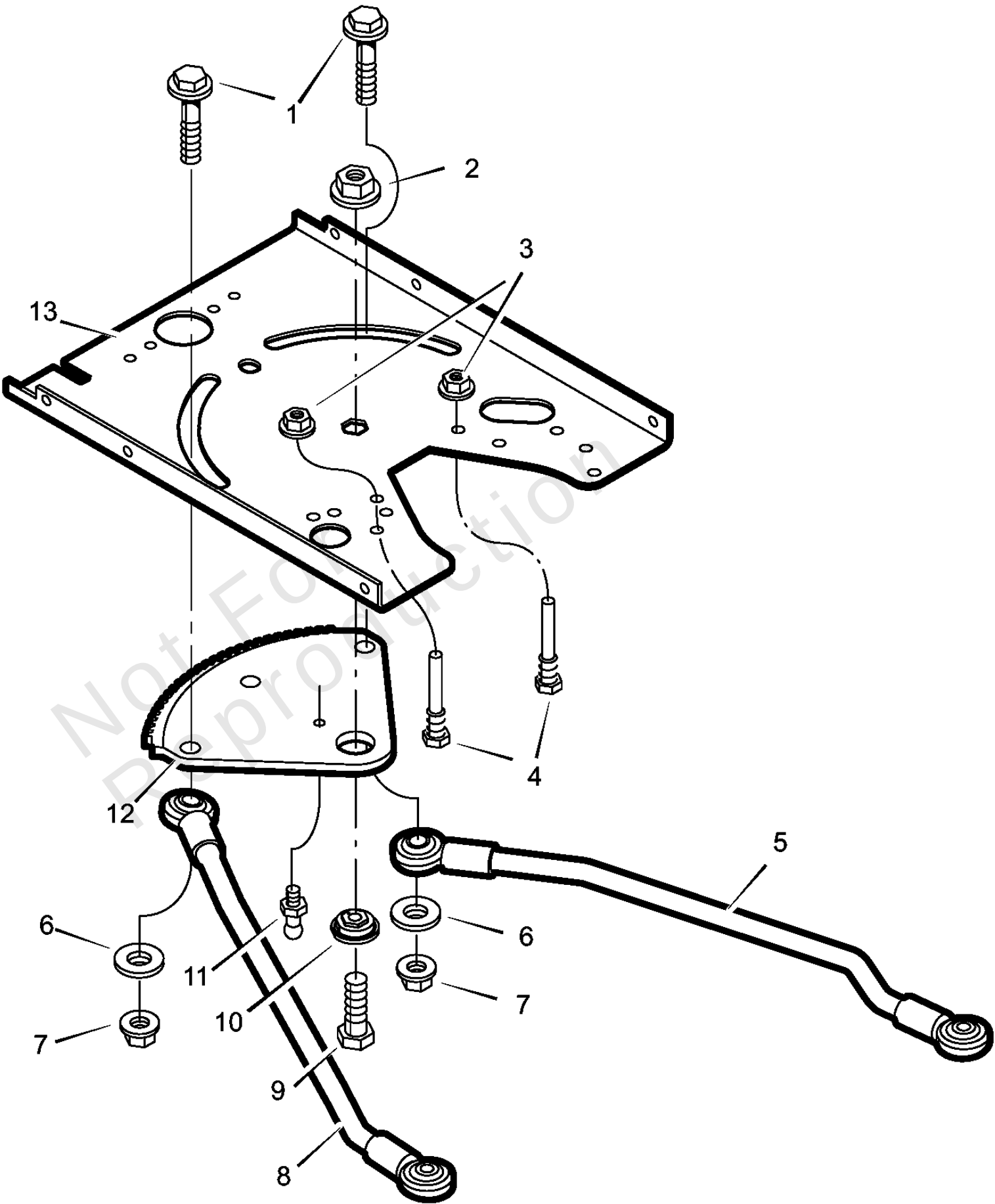
Seat Deck

REF NO	PART NO	QTY	DESCRIPTION
1	094163		Seat
2	094154E700		Support, Seat
3	028X23MA		Push-On Cap
4	017X47MA		Washer
5	094160		Bolt, Wing
6	001X45MA		Bolt
7	094153E700MA		Bracket, Pivot
8	15X123MA		Nut
9	26X229MA		Screw
10	094057MA		Spring, Leaf
11	164X31		Spring
12	094155 Z		Washer, Cup
13	009X55MA		Bolt
14	094156ZMA		Rod, Pivot
15	009X56MA		Bolt, Shoulder
16	095326E549		Deck, Seat
17	26X263MA		SCREW.25-20 S-T
18	164X30MA		Spring
19	26X249MA		Screw
20	092698MA		Grip
21	094217 Z		Handle, PTO
22	0025X3MA		Screw, Hex
23	094022 Z		Paddle, Switch
24	094017 Z		Lever, PTO
25	015X84MA		Nut
26	094004 Z		Link, PTO
27	009X39MA		Shoulder, Bolt
28	017X57MA		Washer
29	030X20MA		Pin, Cotter
30	166X39MA		Spring
31	094018E700		Bracket, PTO
32	166X40MA		Spring
33	17X103MA		Washer
34	690533MA		Handle, Lift
35	092697MA		Grip
36	094591		Wheel, Steering
37	091079MA		Grip
38	054789MA		Bellows
39	095005 Z		Rod, Parking Brake
40	26X267MA		Screw
41	094124MA		Bearing, Lower
42	690183MA		GEAR - PINION
43	011X25MA		E-Ring
44	094127		Shaft, Steering
45	094131MA		Clip, Retainer
46	0031X4MA		Pin, Cotter
47	15X123MA		Nut
--	F-99720		Manual and Parts List

Sector Gear

Note: Unless noted otherwise, use the standard torque specifications

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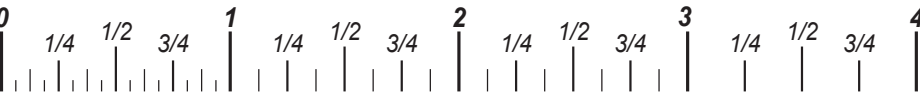
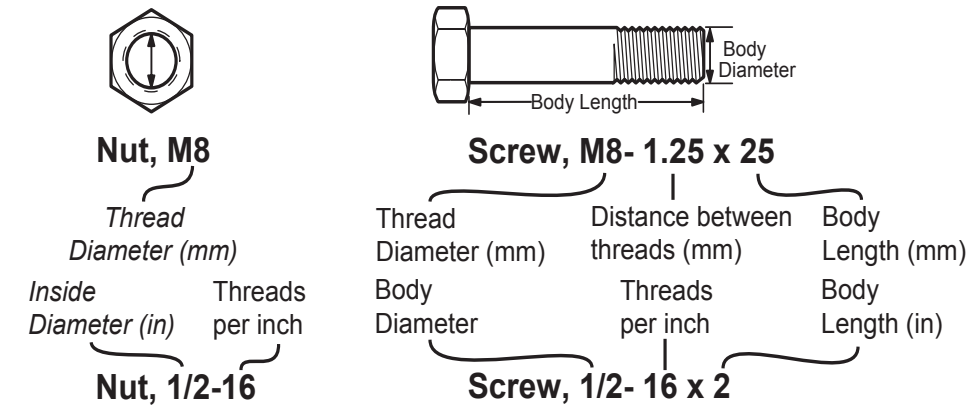
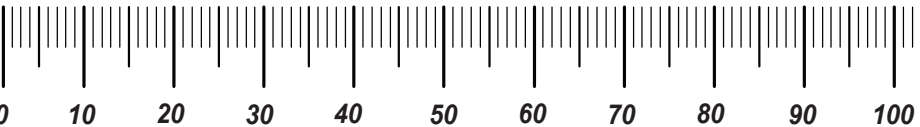
Sector Gear

REF NO	PART NO	QTY	DESCRIPTION
1	009X62MA		Bolt, Shoulder
2	15X113MA		Nut, Lock
3	015X79MA		Nut, Flange
4	094384MA		Guide, Screw
5	690146E700		Link, Left Drag
6	17X168ZMA		Washer
7	015X84MA		Nut, Flange
8	690145E700		Link, Right Drag
9	001X84MA		CAPSCREW, Hex Head, 5/16-18 x 1
10	690180MA		Bearing, Sector Gear
11	092530MA		Fitting, Lub
12	690147E700		Gear, Sector
13	690167E700		Plate, Steering

Hardware Identification & Torque Specifications

Torque Specification Chart								
FOR STANDARD METRIC MACHINE HARDWARE (Tolerance ± 20%)								
Property Class	 Class 5.6		 Class 8.8		 Class 10.9		 Class 12.9	
Size Of Hardware	in/lbs ft/lbs	Nm.	in/lbs ft/lbs	Nm.	in/lbs ft/lbs	Nm.	in/lbs ft/lbs	Nm.
M3	5.88	.56	13.44	1.28	19.2	1.80	22.92	2.15
M4	13.44	1.28	30.72	2.90	43.44	4.10	52.56	4.95
M5	26.4	2.50	60.96	5.75	5.97	8.10	7.15	9.7
M6	44.64	4.3	7.3	9.9	10.3	14	12.1	16.5
M7	5.2	7.1	12.1	16.5	16.9	23	19.9	27
M8	7.7	10.5	17.7	24	25	34	29	40
M10	15	21	35	48	50	67	59	81
M12	26	36	61	83	86.2	117	103	140
M14	42	58	101	132	136	185	162	220
M16	64	88	147	200	210	285	250	340
M18	89	121	202	275	287	390	346	470
M20	126	171	290	390	405	550	486	660
M22	169	230	390	530	559	745	656	890
M24	217	295	497	375	708	960	840	1140
M27	320	435	733	995	1032	1400	1239	1680
M30	435	590	995	1350	1401	1900	1681	2280
M33	590	800	1349	1830	1902	2580	2278	3090
M36	759	1030	1740	2360	2441	3310	2935	3980
M39	988	1340	2249	3050	3163	4290	3798	5150

The guides and ruler furnished below are designed to help you select the appropriate hardware.



Standard Hardware Sizing

When a washer or nut is identified as 1/2" (M8), this is the *Nominal size*, meaning the *inside diameter* is 1/2 inch (8mm metric thread diameter); if a second number is present it represents the *threads per inch* (distance between threads).

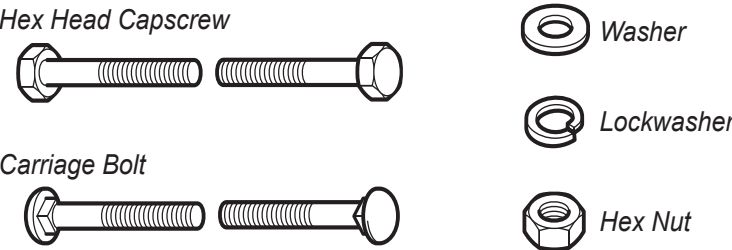
When bolt or capscrew is identified as 1/2 - 16 x 2" (M8 - 1.25 x 50), this means the *Nominal size*, or body diameter is 1/2 inch (8mm metric thread diameter), the second number, 16, represents the *threads per inch*, (*distance between threads*). The final number is the body length of the bolt or screw, 2 inches (50mm).

Torque Specification Chart						
FOR STANDARD MACHINE HARDWARE (Tolerance ± 20%)						
Hardware Grade	 SAE Grade 2		 SAE Grade 5		 SAE Grade 8	
Size Of Hardware	in/lbs ft/lbs	Nm.	in/lbs ft/lbs	Nm.	in/lbs ft/lbs	Nm.
8-32	19	2.1	30	3.4	41	4.6
8-36	20	2.3	31	3.5	43	4.9
10-24	27	3.1	43	4.9	60	6.8
10-32	31	3.5	49	5.5	68	7.7
1/4-20	66	7.6	8	10.9	12	16.3
1/4-28	76	8.6	10	13.6	14	19.0
5/16-18	11	15.0	17	23.1	25	34.0
5/16-24	12	16.3	19	25.8	29	34.0
3/8-16	20	27.2	30	40.8	45	61.2
3/8-24	23	31.3	35	47.6	50	68.0
7/16-14	30	40.8	50	68.0	70	95.2
7/16-20	35	47.6	55	74.8	80	108.8
1/2-13	50	68.0	75	102.0	110	149.6
1/2-20	55	74.8	90	122.4	120	163.2
9/16-12	65	88.4	110	149.6	150	204.0
9/16-18	75	102.0	120	163.2	170	231.2
5/8-11	90	122.4	150	204.0	220	299.2
5/8-18	100	136	180	244.8	240	326.4
3/4-10	160	217.6	260	353.6	386	525.0
3/4-16	180	244.8	300	408.0	420	571.2
7/8-9	140	190.4	400	544.0	600	816.0
7/8-14	155	210.8	440	598.4	660	897.6
1-8	220	299.2	580	788.8	900	1,244.0
1-12	240	326.4	640	870.4	1,000	1,360.0

NOTES

- These torque values are to be used for all hardware excluding: locknuts, self-tapping screws, thread forming screws, sheet metal screws and socket head setscrews.
- Recommended seating torque values for locknuts:
 - for prevailing torque locknuts - use 65% of grade 5 torques.
 - for flange whizlock nuts and screws - use 135% of grade 5 torques.
- Unless otherwise noted on assembly drawings, all torque values must meet this specification.

Common Hardware Types



Wrench & Fastener Size Guide

 1/4" Bolt or Nut Wrench—7/16"	 5/16" Bolt or Nut Wrench—1/2"	 3/8" Bolt or Nut Wrench—9/16"	 7/16" Bolt or Nut Wrench (Bolt)—5/8" Wrench (Nut)—11/16"	 1/2" Bolt or Nut Wrench—3/4"
M6 Bolt or Nut Wrench—10mm	M8 Bolt or Nut Wrench—13mm	M10 Bolt or Nut Wrench—17mm	M12 Bolt or Nut Wrench—19mm	M14 Bolt or Nut Wrench—22mm

